## (54) HYDROXYPHENYL-TERMINATED LADDER POLYSILOXANE FOR SEMICONDUCTOR AND PRODUCTION OF HYDROXYPHENYL-TERMINATED LADDER POLYSILOXANE HAVING HIGH PURITY

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PURPOSE: To obtain the subject polysiloxane having a specific structural formula and low content of sodium, etc., by mixing phenyltrichlorosilane with a compound having a specific formula, dissolving the mixture in an organic solvent, adding extrapure water to hydrolyze the compound and finally washing with extrapure water.

CONSTITUTION: The objective polysiloxane expressed by formula II (R1 and  $R_2$  are alkenyl, phenyl, etc.; n is 570-1,600; m and l satisfy the formulas 2n=m+n and  $l/m+l \ge 0.02$ ), containing  $\le 1$ ppm of Na, K, Fe, Cu, Pb and Cl and ≤lppb of U and Th, formable to a thick film and giving a cured product having excellent crack resistance and heat-resistance can be produced by mixing phenyltrichlorosilane with ≥2mol% of a compound of formula I (X is H, methyl etc.; p is 0-10), dissolving the mixture in an organic solvent at a concentration of 0.05-0.45g/ml, dropping 3-30mol of extrapure water to 1mol of the above mixture, hydrolyzing the mixture and washing the product with extrapure water.

$$HO = \begin{pmatrix} R_1 & m \\ S_1 & -O \\ & & \\ O \\ HO = S_1 & -O \\ & &$$

$$X$$
 $CH = CH - (CH_2) - SiC\ell_0$ 

## (54) PRODUCTION OF POLYETHER COPOLYMER POWDER

(11) 3-207720 (A)

(43) 11.9.1991 (19) JP

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(22) 8.1.1990

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PURPOSE: To obtain the subject powder having crystalline nature and excellent heat-resistance, solvent resistance and mechanical strength by supplying a neutral polar solvent solution containing a polyether copolymer composed of two specific kinds of recurring units to a kneader and granulating the polymer under heating and deaeration at a specific temperature.

CONSTITUTION: The objective powder is produced by supplying a solution of a neutral polar solvent (e.g. DMF) containing a polyether polymer composed of the recurring unit of formula I and the recurring unit of formula II (n is 1 or 2) at a molar ratio I/(I+II) of 0,1009 to a kneader (preferably a vented twin screw extruder) and granulating the polymer under heating and deaerating at 100-300°C and e.g. 50-150rpm while slightly deaerating the system to a pressure of 100-700Torr.

## (54) PRODUCTION OF COMPOSITE MATERIAL OF FIBER-REINFORCED PLASTIC AND RESIN CONCRETE

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(19) JP (43) 11.9.1991

(22) 9.1.1990

(21) Appl. No. 2-954 (71) MITSUI TOATSU CHEM INC (72) ATSUSHI KANEKO(3)

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PURPOSE: To easily obtain the subject composite material with a simple procedure at a low cost by sandwiching a resin concrete between a film and a reinforcing material compound, integrating the components and continuously forming the product by draw-forming process.

CONSTITUTION: The objective composite material can be produced by sandwiching a resin concrete between a releasable film and reinforcing material compound, integrating the components, introducing into a mold and subjecting to continuous draw-forming. The resin concrete is produced e.g. by adding various fillers such as calcium carbonate to an o-phthalate-based unsaturated polyester resin, etc.